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WALDOCK IP

Claims

1. (currently amended) A connector interface for connecting to a cylindrical female connector body having an outer diameter surface and a bore with an inner diameter surface, comprising:
a male connector body with a plurality of outer spring fingers biased for an interference fit upon the outer diameter surface;
a front end portion of a sleeve of the male connector body adapted to insert within the bore; and
a first spring located on an outer diameter of the sleeve;
the first spring dimensioned for compression between the inner diameter surface of the bore and the outer diameter of the sleeve.

2. (original) The connector interface of claim 1, wherein the first spring contacts the inner diameter surface upon mating of the male connector body with the female connector body.

3. (original) The connector interface of claim 1, wherein the first spring is located by a first groove formed in the outer diameter of the sleeve.

4. (original) The connector interface of claim 1, wherein the first spring is a canted coil spring.

5. (original) The connector interface of claim 1, wherein the first spring is a spring finger ring having a plurality of spring finger(s) projecting outward from a collar.

6. (original) The connector interface of claim 5, wherein a radius is formed in a leading edge of each spring finger.

7. (original) The connector interface of claim 5, wherein the collar is dimensioned for press-fit mounting to the outer diameter of the sleeve.

8. (original) The connector interface of claim 1, wherein the first spring is a ring having a plurality of deflectable protrusions.

9. (original) The connector interface of claim 1, wherein the first spring is dimensioned whereby the first spring elastically deforms between the sleeve and the inner diameter surface upon mating of the male connector body with the female connector body.

10. (original) The connector interface of claim 1, further including a second groove located around the plurality of outer spring fingers; and
a second spring positioned in the second groove biasing the plurality of outer spring fingers inward.

11. (original) The connector interface of claim 1, wherein the female connector is one of an SMA and a Type N connector.

12. (original) The connector interface of claim 1, wherein the female connector has a third groove located on the inner diameter surface; the third groove adapted to align with the first groove when the male connector body is seated against the female connector.

13. (original) The connector interface of claim 1, wherein the female connector has a third groove located on the inner diameter surface; the third groove adapted to receive an inner diameter contacting portion of the first spring when the male connector body is seated against the female connector.

14. (original) The connector interface of claim 1, further including an inner conductor contact positioned coaxially within a sleeve bore by an insulator.

15. (original) The connector interface of claim 1, wherein each of the plurality of outer spring fingers has an angled face.

16. (original) The connector interface of claim 1, wherein the sleeve is formed as a separate component press-fit into place within the male connector body.

17. (original) The connector interface of claim 15, wherein the sleeve is press-fit within the male connector body up to an internally projecting shoulder of the male connector body.

18. (original) A connector interface between a female connector with an outer diameter surface and a bore with an inner diameter surface and a male connector, comprising:
a plurality of outer spring fingers formed in a leading edge of the male connector; and
a first spring electrically coupled to the male connector;
the plurality of outer spring fingers biased to engage an outer diameter surface of the female connector;
the first spring adapted to engage the inner diameter surface of the bore.

19. (original) The connector interface of claim 18, wherein the first spring is located by a first groove formed in an outer diameter of a sleeve within the male connector.

20. (original) The connector interface of claim 18, wherein the first spring has a plurality of deflectable protrusions.

21. (original) The connector interface of claim 18, wherein the first spring has a plurality of spring fingers.

22. (original) The connector interface of claim 18, further including a second groove located on an outer diameter of the male connector, around the plurality of outer spring fingers.

23. (original) The connector interface of claim 18, wherein a third groove adapted to engage the first spring is located on the inner diameter surface of the bore.

24. (previously submitted) The connector interface of claim 22, further including a second spring seated in the second groove; the second spring further biasing the outer spring fingers towards the outer diameter surface of the female connector.

25. (original) The connector interface of claim 18, wherein the female connector is one of an SMA and a Type N connector.

26. (currently amended) A spring ring mountable upon a sleeve of a male connector body, the male connector body dimensioned to mate with a female interface having a bore with an inner diameter surface, the spring ring comprising:
a cylindrical collar dimensioned for mounting upon the sleeve of the male connector body;
a plurality of deflectable protrusions extending outward from the collar to contact the inner diameter surface in an interference fit upon mating of the male connector body with the female connector.

27. (original) The spring ring of claim 26, wherein the deflectable protrusions are spring fingers.

28. (previously submitted) The spring ring of claim 26, wherein the mounting of the collar is via a press-fit upon the sleeve of the male connector.

29. (original) The spring ring of claim 26, wherein the spring ring is formed by one of machining, stamping, forming, and injection molding.